

Appl. Serial No. 10/018,716  
Amdt. Dated May 30, 2006  
Response to Office Action of December 20, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A composition for use in regulating hormones of a host, comprising at least one antisense oligonucleotide that is complementary to a nucleotide sequence of a follicle-stimulating hormone receptor (FSHR) transcript;  
wherein the antisense oligonucleotide is selected from the group consisting of deoxyribonucleosides, ribonucleosides, alpha-anomeric deoxyribonucleosides, alpha-anomeric ribonucleosides, and polyamide nucleic acids;  
wherein the FSHR transcript is specific to a mammalian ovarian granulosa cell;  
wherein the antisense oligonucleotide has a nucleotide sequence capable of forming a stable duplex with a portion of the FSHR transcript wherein the portion is lying within about 50 nucleotides from the translation initiation codon of the target nucleotide sequence;  
wherein the antisense oligonucleotide is an oligomer of at least 8 nucleotide residues and is less than 60 nucleotides;  
wherein the antisense oligonucleotide comprises at least 8 contiguous nucleotides of a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3, and SEQ ID NO:4.
2. (Currently amended) The composition of claim 1, wherein the antisense oligonucleotide is contains at least 12 nucleotide residues ~~selected from the group consisting of~~

~~deoxyribonucleosides, ribonucleosides, alpha-anomeric forms of deoxyribonucleosides and ribonucleosides, and polyamide nucleic acids.~~

3. (currently amended) The composition of claim 2, wherein the antisense oligonucleotide has a nucleotide sequence capable of forming a stable duplex with a portion of a target nucleotide sequence of the FSHR gene comprises at least 12 contiguous nucleotides of a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3, and SEQ ID NO:4.
4. (currently amended) The composition of claim [[3]] 1, wherein the antisense oligonucleotides are capable of forming a stable duplex with a portion of the transcript lying within about 50 nucleotides from the translation initiation codon of the target nucleotide sequence wherein the antisense oligonucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3, and SEQ ID NO:4.
5. (currently amended) The composition of claim 3, wherein the antisense oligonucleotide[[s]] are is capable of forming a stable duplex with a portion of the transcript wherein the portion is lying within about [[40]] 50 nucleotides from the translation initiation codon of the target nucleotide sequence.
6. (currently amended) The composition of claim 5 wherein the antisense oligonucleotide[[s]] are is capable of forming a stable duplex with a portion of the target nucleotide sequence transcript including the translation initiation codon.
7. (currently amended) The composition of claim 6, wherein the antisense oligonucleotide is capable of preventing translation of the FSHR transcript upon forming a stable duplex

with a portion of the FSHR transcript is specific for the FSHR gene in the ovarian granulosa cell of a human host.

8. (currently amended) The composition of claim 7, wherein the antisense oligonucleotide comprises no more than one mismatch in complementarity with the transcript ~~is an oligomer containing at least 8 nucleotide residues and is less than 60 nucleotides.~~
9. (currently amended) The composition of claim 7, wherein the antisense oligonucleotide is fully complimentary to the transcript ~~an oligomer containing at least 12 nucleotide residues and is less than 50 nucleotides.~~
10. (original) The composition of claim 7, wherein the antisense oligonucleotide is an oligomer containing at least 15 nucleotide residues and is less than 40 nucleotides.
11. (original) The composition of claim 7, wherein the antisense oligonucleotide is an oligomer containing at least 18 nucleotide residues and is less than 30 nucleotides.
12. (original) The composition of claim 7, wherein the antisense oligonucleotide is a phosphorothioated 18-mer antisense oligodeoxynucleotide.
13. (original) The composition of claim 12, wherein the antisense oligonucleotide is selected from the group consisting of SEQ ID NO: 1, SEQ ID NO:2, SEQ ID NO:3, and SEQ ID NO:4.
14. (original) The composition of claim 7, wherein the antisense oligonucleotide contains at least one nuclease-resistant internucleosidic linkage.
15. (currently amended) The composition of claim 14, wherein the internucleosidic linkage is selected from the group consisting of phosphorothioate; phosphorodithioate[[s]]; phosphoramidate[[s]]; peptide nucleic acid[[s]]; methylphosphonate[[s]]; P-chiral

linkage[[s]], phosphorothioates-chiral phosphorothioate, phosphoroselenoate, phosphorodiselenoate, phosphoroanilothioate, phosphoranilidates, phosphotriester, aminoalkylphosphotriester, alkylphosphotriester such as methyl and ethylphosphotriester, carbonate, carbamate, morpholino carbamate, 3'thioformacetal, and silyl.

16. (currently amended) The composition of claim 14, wherein the internucleosidic linkage is a phosphodiester linkage phosphorus analog.
17. (currently amended) The composition of claim [[16]] 7, wherein the antisense oligonucleotide contains at least one substituted sugar moiety phosphodiester linkage is a phosphorus analog.
18. (currently amended) The composition of claim [[17]] 16, wherein the phosphorus analog is selected from the group consisting of phosphorothioate, phosphorodithioate, phosphoramidate, and methylphosphonate.
19. (currently amended) The composition of claim [[17]] 16, wherein the phosphorus analog is a phosphorothioate.
20. (original) The composition of claim 7, wherein the composition includes a pharmaceutical carrier
21. (original) The composition of claim 20, wherein the pharmaceutical carrier contains one or more compounds selected from the group consisting of excipients, buffers, surfactants, antioxidants, hydrophilic polymers, dextrans, chelating agents, suspending agents, solubilizers, thickening agents, stabilizers, bacteriostats, wetting agents, and preservatives.

22. (original) The composition of claim 7, wherein the antisense oligonucleotide is encapsulated in liposomes.
23. (original) The composition of claim 7, wherein the antisense oligonucleotide is conjugated to poly(L-lysine) to increase cell penetration.
24. (original) The composition of claim 7, wherein the antisense oligonucleotide is conjugated to a ligand-binding molecule.
25. (original) The composition of claim 24, wherein the ligand-binding molecule is an antibody.
26. (original) The composition of claim 20, wherein the composition is in the form of a pill, tablet, or capsule for oral administration to a subject in need of said compound.
27. (original) The composition of claim 20, wherein said composition is in the form of a liquid for oral administration to a subject in need of said compound.
28. (currently amended) The composition of claim 20, wherein said composition ~~being~~ is in the form of a liquid for nasal administration as drops or spray to a subject in need of said composition.
29. (original) The composition of claim 20, wherein said composition is in the form of a liquid for intravenous, subcutaneous, parenteral, or intraperitoneal administration to a subject in need of said composition.
30. (original) The composition of claim 20, wherein said composition is in the form of a biodegradable sustained- release composition for intramuscular administration to a subject in need of said composition.

31-95 (withdrawn)